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Sun, William

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aaatataaac tttcatttta aacagcaaaa aaaaaaaaaa aaaa 2684

<210> 7
<211> 550
<212> PRT
<213> Homo sapiens

<400> 7

```
Met Ala Phe Asn Asp Leu Leu Gln Gln Val Gly Gly Val Gly Arg Phe
1               5                  10                  15

Gln Gln Ile Gln Val Thr Leu Val Val Leu Pro Leu Leu Leu Met Ala
            20                  25                  30

Ser His Asn Thr Leu Gln Asn Phe Thr Ala Ala Ile Pro Thr His His
        35                  40                  45

Cys Arg Pro Pro Ala Asp Ala Asn Leu Ser Lys Asn Gly Gly Leu Glu
    50                  55                  60

Val Trp Leu Pro Arg Asp Arg Gln Gly Gln Pro Glu Ser Cys Leu Arg
65                  70                  75                  80

Phe Thr Ser Pro Gln Trp Gly Leu Pro Phe Leu Asn Gly Thr Glu Ala
                85                  90                  95

Asn Gly Thr Gly Ala Thr Glu Pro Cys Thr Asp Gly Trp Ile Tyr Asp
            100                 105                 110

Asn Ser Thr Phe Pro Ser Thr Ile Val Thr Glu Trp Asp Leu Val Cys
        115                 120                 125

Ser His Arg Ala Leu Arg Gln Leu Ala Gln Ser Leu Tyr Met Val Gly
    130                 135                 140

Val Leu Leu Gly Ala Met Val Phe Gly Tyr Leu Ala Asp Arg Leu Gly
145                 150                 155                 160

Arg Arg Lys Val Leu Ile Leu Asn Tyr Leu Gln Thr Ala Val Ser Gly
                165                 170                 175

Thr Cys Ala Ala Phe Ala Pro Asn Phe Pro Ile Tyr Cys Ala Phe Arg
            180                 185                 190

Leu Leu Ser Gly Met Ala Leu Ala Gly Ile Ser Leu Asn Cys Met Thr
        195                 200                 205
```

```
Leu Asn Val Glu Trp Met Pro Ile His Thr Arg Ala Cys Val Gly Thr
    210                 215                 220

Leu Ile Gly Tyr Val Tyr Ser Leu Gly Gln Phe Leu Leu Ala Gly Val
225                 230                 235                 240

Ala Tyr Ala Val Pro His Trp Arg His Leu Gln Leu Leu Val Ser Ala
                245                 250                 255

Pro Phe Phe Ala Phe Phe Ile Tyr Ser Trp Phe Phe Ile Glu Ser Ala
            260                 265                 270

Arg Trp His Ser Ser Ser Gly Arg Leu Asp Leu Thr Leu Arg Ala Leu
        275                 280                 285

Gln Arg Val Ala Arg Ile Asn Gly Lys Arg Glu Glu Gly Ala Lys Leu
    290                 295                 300

Ser Met Glu Val Leu Arg Ala Ser Leu Gln Lys Glu Leu Thr Met Gly
305                 310                 315                 320

Lys Gly Gln Ala Ser Ala Met Glu Leu Leu Arg Cys Pro Thr Leu Arg
                325                 330                 335

His Leu Phe Leu Cys Leu Ser Met Leu Trp Phe Ala Thr Ser Phe Ala
            340                 345                 350

Tyr Tyr Gly Leu Val Met Asp Leu Gln Gly Phe Gly Val Ser Ile Tyr
        355                 360                 365

Leu Ile Gln Val Ile Phe Gly Ala Val Asp Leu Pro Ala Lys Leu Val
    370                 375                 380

Gly Phe Leu Val Ile Asn Ser Leu Gly Arg Arg Pro Ala Gln Met Ala
385                 390                 395                 400

Ala Leu Leu Leu Ala Gly Ile Cys Ile Leu Leu Asn Gly Val Ile Pro
                405                 410                 415

Gln Asp Gln Ser Ile Val Arg Thr Ser Leu Ala Val Leu Gly Lys Gly
            420                 425                 430
```

Cys Leu Ala Ala Ser Phe Asn Cys Ile Phe Leu Tyr Thr Gly Glu Leu
435 440 445

Tyr Pro Thr Met Ile Arg Gln Thr Gly Met Gly Met Gly Ser Thr Met
450 455 460

Ala Arg Val Gly Ser Ile Val Ser Pro Leu Val Ser Met Thr Ala Glu
465 470 475 480

Leu Tyr Pro Ser Met Pro Leu Phe Ile Tyr Gly Ala Val Pro Val Ala
485 490 495

Ala Ser Ala Val Thr Val Leu Leu Pro Glu Thr Leu Gly Gln Pro Leu
500 505 510

Pro Asp Thr Val Gln Asp Leu Glu Ser Arg Lys Gly Lys Gln Thr Arg
515 520 525

Gln Gln Gln Glu His Gln Lys Tyr Met Val Pro Leu Gln Ala Ser Ala
530 535 540

Gln Glu Lys Asn Gly Leu
545 550

<210> 8
<211> 546
<212> PRT
<213> Homo sapiens

<400> 8

Met Gly Phe Glu Glu Leu Leu Glu Gln Val Gly Gly Phe Gly Pro Phe
1 5 10 15

Gln Leu Arg Asn Val Ala Leu Leu Ala Leu Pro Arg Val Leu Leu Pro
20 25 30

Leu His Phe Leu Leu Pro Ile Phe Leu Ala Ala Val Pro Ala His Arg
35 40 45

Cys Ala Leu Pro Gly Ala Pro Ala Asn Phe Ser His Gln Asp Val Trp
50 55 60

Leu Glu Ala His Leu Pro Arg Glu Pro Asp Gly Thr Leu Ser Ser Cys

65 70 75 80

Leu Arg Phe Ala Tyr Pro Gln Ala Leu Pro Asn Thr Thr Leu Gly Glu
85 90 95

Glu Arg Gln Ser Arg Gly Glu Leu Glu Asp Glu Pro Ala Thr Val Pro
100 105 110

Cys Ser Gln Gly Trp Glu Tyr Asp His Ser Glu Phe Ser Ser Thr Ile
115 120 125

Ala Thr Glu Trp Asp Leu Val Cys Glu Gln Lys Gly Leu Asn Arg Ala
130 135 140

Ala Ser Thr Phe Phe Phe Ala Gly Val Leu Val Gly Ala Val Ala Phe
145 150 155 160

Gly Tyr Leu Ser Asp Arg Phe Gly Arg Arg Arg Leu Leu Leu Val Ala
165 170 175

Tyr Val Ser Thr Leu Val Leu Gly Leu Ala Ser Ala Ala Ser Val Ser
180 185 190

Tyr Val Met Phe Ala Ile Thr Arg Thr Leu Thr Gly Ser Ala Leu Ala
195 200 205

Gly Phe Thr Ile Ile Val Met Pro Leu Glu Leu Glu Trp Leu Asp Val
210 215 220

Glu His Arg Thr Val Ala Gly Val Leu Ser Ser Thr Phe Trp Thr Gly
225 230 235 240

Gly Val Met Leu Leu Ala Leu Val Gly Tyr Leu Ile Arg Asp Trp Arg
245 250 255

Trp Leu Leu Leu Ala Val Thr Leu Pro Cys Ala Pro Ser Ile Leu Ser
260 265 270

Leu Trp Trp Val Pro Glu Ser Ala Arg Trp Leu Leu Thr Gln Gly His
275 280 285

Val Lys Glu Ala His Arg Tyr Leu Leu His Cys Ala Arg Leu Asn Gly

290 295 300

Arg Pro Val Cys Glu Asp Ser Phe Ser Gln Glu Ala Val Ser Lys Val
305 310 315 320

Ala Ala Gly Glu Arg Val Val Arg Arg Pro Ser Tyr Leu Asp Leu Phe
325 330 335

Arg Thr Pro Arg Leu Arg His Ile Ser Leu Cys Cys Val Val Val Trp
340 345 350

Phe Gly Val Asn Phe Ser Tyr Tyr Gly Leu Ser Leu Asp Val Ser Gly
355 360 365

Leu Gly Leu Asn Val Tyr Gln Thr Gln Leu Leu Phe Gly Ala Val Glu
370 375 380

Leu Pro Ser Lys Leu Leu Val Tyr Leu Ser Val Arg Tyr Ala Gly Arg
385 390 395 400

Arg Leu Thr Gln Ala Gly Thr Leu Leu Gly Thr Ala Leu Ala Phe Gly
405 410 415

Thr Arg Leu Leu Val Ser Ser Asp Met Lys Ser Trp Ser Thr Val Leu
420 425 430

Ala Val Met Gly Lys Ala Phe Ser Glu Ala Ala Phe Thr Thr Ala Tyr
435 440 445

Leu Phe Thr Ser Glu Leu Tyr Pro Thr Val Leu Arg Gln Thr Gly Met
450 455 460

Gly Leu Thr Ala Leu Val Gly Arg Leu Gly Gly Ser Leu Ala Pro Leu
465 470 475 480

Ala Ala Leu Leu Asp Gly Val Trp Leu Ser Leu Pro Lys Leu Thr Tyr
485 490 495

Gly Gly Ile Ala Leu Leu Ala Ala Gly Thr Ala Leu Leu Leu Pro Glu
500 505 510

Thr Arg Gln Ala Gln Leu Pro Glu Thr Ile Gln Asp Val Glu Arg Lys
515 520 525

Ser Ala Pro Thr Ser Leu Gln Glu Glu Glu Met Pro Met Lys Gln Val
530 535 540

Gln Asn
545

<210> 9
<211> 538
<212> PRT
<213> Homo sapiens

<400> 9

Met Gly Phe Glu Glu Leu Leu Glu Gln Val Gly Gly Phe Gly Pro Phe
1 5 10 15

Gln Leu Arg Asn Val Ala Leu Leu Ala Leu Pro Arg Val Leu Leu Pro
20 25 30

Leu His Phe Leu Leu Pro Ile Phe Leu Ala Ala Val Pro Ala His Arg
35 40 45

Cys Ala Leu Pro Gly Ala Pro Ala Asn Phe Ser His Gln Asp Val Trp
50 55 60

Leu Glu Ala His Leu Pro Arg Glu Pro Asp Gly Thr Leu Ser Ser Cys
65 70 75 80

Leu Arg Phe Ala Tyr Pro Gln Ala Leu Pro Asn Thr Thr Leu Gly Glu
85 90 95

Glu Arg Gln Ser Arg Gly Glu Leu Glu Asp Glu Pro Ala Thr Val Pro
100 105 110

Cys Ser Gln Gly Trp Glu Tyr Asp His Ser Glu Phe Ser Ser Thr Ile
115 120 125

Ala Thr Glu Trp Asp Leu Val Cys Glu Gln Lys Gly Leu Asn Arg Ala
130 135 140

Ala Ser Thr Phe Phe Phe Ala Gly Val Leu Val Gly Ala Val Ala Phe
145 150 155 160

```
Gly Tyr Leu Ser Asp Arg Phe Gly Arg Arg Arg Leu Leu Leu Val Ala
                165                 170                 175

Tyr Val Ser Thr Leu Val Leu Gly Leu Ala Ser Ala Ala Ser Val Ser
            180                 185                 190

Tyr Val Met Phe Ala Ile Thr Arg Thr Leu Thr Gly Ser Ala Leu Ala
        195                 200                 205

Gly Phe Thr Ile Ile Val Met Pro Leu Glu Leu Glu Trp Leu Asp Val
    210                 215                 220

Glu His Arg Thr Val Ala Gly Val Leu Ser Ser Thr Phe Trp Thr Gly
225                 230                 235                 240

Gly Val Met Leu Leu Ala Leu Val Gly Tyr Leu Ile Arg Asp Trp Arg
                245                 250                 255

Trp Leu Leu Leu Ala Val Thr Leu Pro Cys Ala Pro Ser Ile Leu Ser
            260                 265                 270

Leu Trp Trp Val Pro Glu Ser Ala Arg Trp Leu Leu Thr Gln Gly His
        275                 280                 285

Val Lys Glu Ala His Arg Tyr Leu Leu His Cys Ala Arg Leu Asn Gly
    290                 295                 300

Arg Pro Val Cys Glu Asp Ser Phe Ser Gln Glu Ala Val Ser Lys Val
305                 310                 315                 320

Ala Ala Gly Glu Arg Val Val Arg Arg Pro Ser Tyr Leu Asp Leu Phe
                325                 330                 335

Arg Thr Pro Arg Leu Arg His Ile Ser Leu Cys Cys Val Val Val Trp
            340                 345                 350

Phe Gly Val Asn Phe Ser Tyr Tyr Gly Leu Ser Leu Asp Val Ser Gly
        355                 360                 365

Leu Gly Leu Asn Val Tyr Gln Thr Gln Leu Leu Phe Gly Ala Val Glu
    370                 375                 380

Leu Pro Ser Lys Leu Leu Val Tyr Leu Ser Val Arg Tyr Ala Gly Arg
```

385 390 395 400

Arg Leu Thr Gln Ala Gly Thr Leu Leu Gly Thr Ala Leu Ala Phe Gly
405 410 415

Thr Arg Leu Leu Val Ser Ser Asp Met Lys Ser Trp Ser Thr Val Leu
420 425 430

Ala Val Met Gly Lys Ala Phe Ser Glu Ala Ala Phe Thr Thr Ala Tyr
435 440 445

Leu Phe Thr Ser Glu Leu Tyr Pro Thr Val Leu Arg Gln Thr Gly Met
450 455 460

Gly Leu Thr Ala Leu Val Gly Arg Leu Gly Gly Ser Leu Ala Pro Leu
465 470 475 480

Ala Ala Leu Leu Asp Gly Val Trp Leu Ser Leu Pro Lys Leu Thr Tyr
485 490 495

Gly Gly Ile Ala Leu Leu Ala Ala Gly Thr Ala Leu Leu Leu Pro Glu
500 505 510

Thr Arg Gln Ala Gln Leu Pro Glu Thr Ile Gln Asp Val Glu Arg Lys
515 520 525

Arg Asp Gly Ala Lys Glu Arg Thr Ser Ile
530 535

<210> 10
<211> 542
<212> PRT
<213> Homo sapiens

<400> 10

Met Thr Phe Ser Glu Ile Leu Asp Arg Val Gly Ser Met Gly His Phe
1 5 10 15

Gln Phe Leu His Val Ala Ile Leu Gly Leu Pro Ile Leu Asn Met Ala
20 25 30

Asn His Asn Leu Leu Gln Ile Phe Thr Ala Ala Thr Pro Val His His
35 40 45

```
Cys Arg Pro Pro His Asn Ala Ser Thr Gly Pro Trp Val Leu Pro Met
    50                  55                  60

Gly Pro Asn Gly Lys Pro Glu Arg Cys Leu Arg Phe Val His Pro Pro
65                  70                  75                  80

Asn Ala Ser Leu Pro Asn Asp Thr Gln Arg Ala Met Glu Pro Cys Leu
                85                  90                  95

Asp Gly Trp Val Tyr Asn Ser Thr Lys Asp Ser Ile Val Thr Glu Trp
            100                 105                 110

Asp Leu Val Cys Asn Ser Asn Lys Leu Lys Glu Met Ala Gln Ser Ile
        115                 120                 125

Phe Met Ala Gly Ile Leu Ile Gly Gly Leu Val Leu Gly Asp Leu Ser
    130                 135                 140

Asp Arg Phe Gly Arg Arg Pro Ile Leu Thr Cys Ser Tyr Leu Leu Leu
145                 150                 155                 160

Ala Ala Ser Gly Ser Gly Ala Ala Phe Ser Pro Thr Phe Pro Ile Tyr
                165                 170                 175

Met Val Phe Arg Phe Leu Cys Gly Phe Gly Ile Ser Gly Ile Thr Leu
            180                 185                 190

Ser Thr Val Ile Leu Asn Val Glu Trp Val Pro Thr Arg Met Arg Ala
        195                 200                 205

Ile Met Ser Thr Ala Leu Gly Tyr Cys Tyr Thr Phe Gly Gln Phe Ile
    210                 215                 220

Leu Pro Gly Leu Ala Tyr Ala Ile Pro Gln Trp Arg Trp Leu Gln Leu
225                 230                 235                 240

Thr Val Ser Ile Pro Phe Phe Val Phe Phe Leu Ser Ser Trp Trp Thr
                245                 250                 255

Pro Glu Ser Ile Arg Trp Leu Val Leu Ser Gly Lys Ser Ser Lys Ala
            260                 265                 270
```

```
Leu Lys Ile Leu Arg Arg Val Ala Val Phe Asn Gly Lys Lys Glu Glu
        275                 280                 285

Gly Glu Arg Leu Ser Leu Glu Glu Leu Lys Leu Asn Leu Gln Lys Glu
    290                 295                 300

Ile Ser Leu Ala Lys Ala Lys Tyr Thr Ala Ser Asp Leu Phe Arg Ile
305                 310                 315                 320

Pro Met Leu Arg Arg Met Thr Phe Cys Leu Ser Leu Ala Trp Phe Ala
                325                 330                 335

Thr Gly Phe Ala Tyr Tyr Ser Leu Ala Met Gly Val Glu Glu Phe Gly
            340                 345                 350

Val Asn Leu Tyr Ile Leu Gln Ile Ile Phe Gly Gly Val Asp Val Pro
        355                 360                 365

Ala Lys Phe Ile Thr Ile Leu Ser Leu Ser Tyr Leu Gly Arg His Thr
    370                 375                 380

Thr Gln Ala Ala Ala Leu Leu Leu Ala Gly Gly Ala Ile Leu Ala Leu
385                 390                 395                 400

Thr Phe Val Pro Leu Asp Leu Gln Thr Val Arg Thr Val Leu Ala Val
                405                 410                 415

Phe Gly Lys Gly Cys Leu Ser Ser Ser Phe Ser Cys Leu Phe Leu Tyr
            420                 425                 430

Thr Ser Glu Leu Tyr Pro Thr Val Ile Arg Gln Thr Gly Met Gly Val
        435                 440                 445

Ser Asn Leu Trp Thr Arg Val Gly Ser Met Val Ser Pro Leu Val Lys
    450                 455                 460

Ile Thr Gly Glu Val Gln Pro Phe Ile Pro Asn Ile Ile Tyr Gly Ile
465                 470                 475                 480

Thr Ala Leu Leu Gly Gly Ser Ala Ala Leu Phe Leu Pro Glu Thr Leu
                485                 490                 495
```

```
Asn Gln Pro Leu Pro Glu Thr Ile Glu Asp Leu Glu Asn Trp Ser Leu
            500                 505                 510

Arg Ala Lys Lys Pro Lys Gln Glu Pro Glu Val Glu Lys Ala Ser Gln
        515                 520                 525

Arg Ile Pro Leu Gln Pro His Gly Pro Gly Leu Gly Ser Ser
    530                 535                 540
```

<210> 11
<211> 554
<212> PRT
<213> Homo sapiens

<400> 11

```
Met Ala Phe Gln Asp Leu Leu Gly His Ala Gly Asp Leu Trp Arg Phe
1               5                   10                  15

Gln Ile Leu Gln Thr Val Phe Leu Ser Ile Phe Ala Val Ala Thr Tyr
            20                  25                  30

Leu His Phe Met Leu Glu Asn Phe Thr Ala Phe Ile Pro Gly His Arg
        35                  40                  45

Cys Trp Val His Ile Leu Asp Asn Asp Thr Val Ser Asp Asn Asp Thr
    50                  55                  60

Gly Ala Leu Ser Gln Asp Ala Leu Leu Arg Ile Ser Ile Pro Leu Asp
65                  70                  75                  80

Ser Asn Met Arg Pro Glu Lys Cys Arg Arg Phe Val His Pro Gln Trp
                85                  90                  95

Gln Leu Leu His Leu Asn Gly Thr Phe Pro Asn Thr Ser Asp Ala Asp
            100                 105                 110

Met Glu Pro Cys Val Asp Gly Trp Val Tyr Asp Arg Ile Ser Phe Ser
        115                 120                 125

Ser Thr Ile Gly Asp Leu Lys Trp Asp Leu Val Cys Asp Ser Gln Ser
    130                 135                 140

Leu Thr Ser Val Ala Lys Phe Val Phe Met Ala Gly Met Met Leu Gly
145                 150                 155                 160
```

```
Gly Ile Leu Gly Val His Leu Ser Asp Arg Phe Gly Arg Ser Phe Val
                165                 170                 175

Leu Arg Trp Cys Tyr Leu Gln Val Ala Ile Val Gly Thr Cys Ala Ala
            180                 185                 190

Leu Ala Pro Thr Phe Leu Ile Tyr Cys Ser Val Arg Phe Leu Ser Gly
        195                 200                 205

Ile Ala Ala Met Ser Phe Ile Thr Asn Thr Ile Met Leu Ile Ala Glu
    210                 215                 220

Trp Ala Thr His Arg Phe Gln Ala Met Gly Ile Thr Leu Gly Met Cys
225                 230                 235                 240

Pro Ser Gly Ile Ala Phe Met Thr Leu Ala Gly Leu Ala Phe Ala Ile
                245                 250                 255

Arg Asp Trp His Ile Leu Gln Leu Val Val Ser Val Pro Tyr Phe Val
            260                 265                 270

Ile Phe Leu Thr Ser Ser Trp Leu Leu Glu Ser Ala Arg Trp Leu Ile
        275                 280                 285

Ile Asn Asn Lys Pro Glu Glu Gly Leu Lys Glu Leu Arg Lys Ala Ala
    290                 295                 300

His Arg Ser Gly Met Lys Asn Ala Arg Asp Thr Leu Thr Leu Glu Ile
305                 310                 315                 320

Leu Lys Ser Thr Met Lys Lys Glu Leu Glu Ala Ala Gln Lys Lys Lys
                325                 330                 335

Pro Ser Leu Cys Glu Met Leu His Met Pro Asn Ile Cys Lys Arg Ile
            340                 345                 350

Ser Leu Leu Ser Phe Thr Arg Phe Ala Asn Phe Met Ala Tyr Phe Gly
        355                 360                 365

Leu Asn Leu His Val Gln His Leu Gly Asn Asn Val Phe Leu Leu Gln
    370                 375                 380
```

```
Thr Leu Phe Gly Ala Val Ile Leu Leu Ala Asn Cys Val Ala Pro Trp
385                 390                 395                 400

Ala Leu Lys Tyr Met Asn Arg Arg Ala Ser Gln Met Leu Leu Met Phe
                405                 410                 415

Leu Leu Ala Ile Cys Leu Leu Ala Ile Ile Phe Val Pro Gln Glu Met
            420                 425                 430

Gln Thr Leu Arg Glu Val Leu Ala Thr Leu Gly Leu Gly Ala Ser Ala
        435                 440                 445

Leu Ala Asn Thr Leu Ala Phe Ala His Gly Asn Glu Val Ile Pro Thr
    450                 455                 460

Ile Ile Arg Ala Arg Ala Met Gly Ile Asn Ala Thr Phe Ala Asn Ile
465                 470                 475                 480

Ala Gly Ala Leu Ala Pro Leu Met Met Ile Leu Ser Val Tyr Ser Pro
                485                 490                 495

Pro Leu Pro Trp Ile Ile Tyr Gly Val Phe Pro Phe Ile Ser Gly Phe
            500                 505                 510

Ala Phe Leu Leu Leu Pro Glu Thr Arg Asn Lys Pro Leu Phe Asp Thr
        515                 520                 525

Ile Gln Asp Glu Lys Asn Glu Arg Lys Asp Pro Arg Glu Pro Lys Gln
    530                 535                 540

Glu Asp Pro Arg Val Glu Val Thr Gln Phe
545                 550
```

<210> 12
<211> 541
<212> PRT
<213> Homo sapiens

<400> 12

```
Met Ala Phe Glu Glu Leu Leu Ser Gln Val Gly Gly Leu Gly Arg Phe
1               5                   10                  15

Gln Met Leu His Leu Val Phe Ile Leu Pro Ser Leu Met Leu Leu Ile
```

```
            20                  25                  30

Pro His Ile Leu Leu Glu Asn Phe Ala Ala Ala Ile Pro Gly His Arg
        35                  40                  45

Cys Trp Val His Met Leu Asp Asn Asn Thr Gly Ser Gly Asn Glu Thr
    50                  55                  60

Gly Ile Leu Ser Glu Asp Ala Leu Leu Arg Ile Ser Ile Pro Leu Asp
65                  70                  75                  80

Ser Asn Leu Arg Pro Glu Lys Cys Arg Arg Phe Val His Pro Gln Trp
                85                  90                  95

Gln Leu Leu His Leu Asn Gly Thr Ile His Ser Thr Ser Glu Ala Asp
            100                 105                 110

Thr Glu Pro Cys Val Asp Gly Trp Val Tyr Asp Gln Ser Tyr Phe Pro
        115                 120                 125

Ser Thr Ile Val Thr Lys Trp Asp Leu Val Cys Asp Tyr Gln Ser Leu
    130                 135                 140

Lys Ser Val Val Gln Phe Leu Leu Leu Thr Gly Met Leu Val Gly Gly
145                 150                 155                 160

Ile Ile Gly Gly His Val Ser Asp Arg Phe Gly Arg Arg Phe Ile Leu
                165                 170                 175

Arg Trp Cys Leu Leu Gln Leu Ala Ile Thr Asp Thr Cys Ala Ala Phe
            180                 185                 190

Ala Pro Thr Phe Pro Val Tyr Cys Val Leu Arg Phe Leu Ala Gly Phe
        195                 200                 205

Ser Ser Met Ile Ile Ile Ser Asn Asn Ser Leu Pro Ile Thr Glu Trp
    210                 215                 220

Ile Arg Pro Asn Ser Lys Ala Leu Val Val Ile Leu Ser Ser Gly Ala
225                 230                 235                 240

Leu Ser Ile Gly Gln Ile Ile Leu Gly Gly Leu Ala Tyr Val Phe Arg
```

245 250 255

Asp Trp Gln Thr Leu His Val Val Ala Ser Val Pro Phe Leu Gly Leu
260 265 270

Leu Leu Leu Gln Arg Trp Leu Val Glu Ser Ala Arg Trp Leu Ile Ile
275 280 285

Thr Asn Lys Leu Asp Glu Gly Leu Lys Ala Leu Arg Lys Val Ala Arg
290 295 300

Thr Asn Gly Ile Lys Asn Ala Glu Glu Thr Leu Asn Ile Glu Val Val
305 310 315 320

Arg Ser Thr Met Gln Glu Glu Leu Asp Ala Ala Gln Thr Lys Thr Thr
325 330 335

Val Cys Asp Leu Phe Arg Asn Pro Ser Met Arg Lys Arg Ile Cys Ile
340 345 350

Leu Val Phe Leu Arg Phe Ala Asn Thr Ile Pro Phe Tyr Gly Thr Met
355 360 365

Val Asn Leu Gln His Val Gly Ser Asn Ile Phe Leu Leu Gln Val Leu
370 375 380

Tyr Gly Ala Val Ala Leu Ile Val Arg Cys Leu Ala Leu Leu Thr Leu
385 390 395 400

Asn His Met Gly Arg Arg Ile Ser Gln Ile Leu Phe Met Phe Leu Val
405 410 415

Gly Leu Ser Ile Leu Ala Asn Thr Phe Val Pro Lys Glu Met Gln Thr
420 425 430

Leu Arg Val Ala Leu Ala Cys Leu Gly Ile Gly Cys Ser Ala Ala Thr
435 440 445

Phe Ser Ser Val Ala Val His Phe Ile Glu Leu Ile Pro Thr Val Leu
450 455 460

Arg Ala Arg Ala Ser Gly Ile Asp Leu Thr Ala Ser Arg Ile Gly Ala
465 470 475 480

```
Ala Leu Ala Pro Leu Leu Met Thr Leu Thr Val Phe Phe Thr Thr Leu
                485                 490                 495

Pro Trp Ile Ile Tyr Gly Ile Phe Pro Ile Ile Gly Gly Leu Ile Val
            500                 505                 510

Phe Leu Leu Pro Glu Thr Lys Asn Leu Pro Leu Pro Asp Thr Ile Lys
        515                 520                 525

Asp Val Glu Asn Gln Lys Lys Asn Leu Lys Glu Lys Ala
    530                 535                 540
```